

वस्त्रादि — हथकरघा की हल्की
सूती शीटिंग — विशिष्टि

(दूसरा पुनरीक्षण)

**Textiles — Handloom Cotton Light
Sheeting — Specification**

(*Second Revision*)

ICS 59.080.30

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FOREWORD

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Handloom and Khadi Sectional Committee had been approved by the Textiles Division Council.

This standard was originally published in 1956 and was subsequently revised in 1990. The standard has again been revised to incorporate the following major changes:

- a) Method of test for count of yarn along with its tolerance has been specified;
- b) Tolerances for ends/dm, picks/dm and mass have been modified;
- c) Test method for identification of material has been incorporated;
- d) Sampling plan has been updated;
- e) BIS certification marking clause has been modified; and
- f) References to Indian Standards have been updated.

The composition of the Committee responsible for the formulation of this standard is given in Annex E.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*)’. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Indian Standard***TEXTILES — HANDLOOM COTTON LIGHT SHEETING — SPECIFICATION***(Second Revision)***1 SCOPE**

1.1 This standard prescribes constructional particulars and other requirements for four varieties of handloom cotton light sheeting cloth.

1.2 This standard does not specify the general appearance, feel, finish, etc.

2 REFERENCES

The standards listed in Annex A contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of these standards.

3 ATMOSPHERIC CONDITIONS FOR TESTING

Test specimens may be conditioned and tested in the prevailing atmosphere for determining the conformity of the cloth to this standard. However, in all cases of disputes, specimens shall be conditioned and tested in the standard atmosphere as specified in the Indian Standards referred to on test methods.

4 MANUFACTURE**4.1 Yarn**

The cotton yarn used in the manufacture of the cloth shall conform to the requirements specified in IS 171.

4.2 The cloth shall be woven in plain weave.

4.2.1 The cloth shall be either grey or scoured, bleached or dyed as required. The cloth shall be free from substances liable to cause subsequent tendering.

5 REQUIREMENTS

5.1 The cloth shall conform to the requirements specified in Table 1.

5.1.1 However, breaking load requirement shall be an optional requirement. It shall be enforced only when conformance of cotton yarn to the requirements specified in IS 171 is not known.

5.2 The cloth shall also conform to the requirements specified in Table 2.

5.3 Dimensions

Length and width of the cloth, when determined in accordance with IS 1954, shall be as agreed to between the buyer and the seller or as declared by the seller subject to the tolerances specified in the Government of India, Ministry of Commerce and Industry Notification No. SO. 2937 dated 20 September 1962 issued under *Trade and Merchandise Marks Act, 1958* (43 of 1958) (see Annex B).

5.4 In order to illustrate or specify the indeterminable characteristics, such as general appearance, lustre, feel and shade of the cloth, a sample has been agreed upon and sealed, the supply shall be in conformity with the sample in such respects.

5.4.1 The custody of the sealed sample shall be a matter of prior agreement between the buyer and the seller.

6 INSPECTION

6.1 The cloth when visually inspected should be free from the major flaws listed in Annex D.

6.1.1 The number of permissible major flaws per metre length shall be as agreed to between the buyer and the seller.

7 SAMPLING**7.1 Lot**

The quantity of the cloth of the same variety delivered to one buyer against one despatch note shall constitute a lot.

7.2 The conformity of the lot to the various requirements specified in the standard shall be determined on the basis of tests carried out on the samples selected from the lot.

7.3 Unless otherwise agreed, the number of pieces selected at random for inspection shall be in accordance with Table 3.

Table 1 Constructional Particulars and Breaking Load Requirements for Handloom Cotton Light Sheetings

(Clause 5.1)

Sl No.	Variety No.	Count of Yarn (for Guidance Only) Universal Count (Cotton Count)		Ends/dm	Picks/dm	Mass g/m ²	Breaking Load	
		Warp	Weft				Warp	Weft
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
i)	1	60 tex (10s)	50 tex (12s)	160	140	170	240	180
ii)	2	36 tex (16s)	50 tex (12s)	170	160	150	240	180
iii)	3	36 tex (16s)	36 tex (16s)	160	160	120	200	200
iv)	4	36 tex (16s)	36 tex (16s)	240	210	170	300	280
Tolerance, Percent	—	± 5	± 5	± 5	± 5	± 5	- 5 on average value and - 15 on individual reading	
Method of Test, Ref to	—	IS 3442		IS 1963		IS 1964 or Annex C	IS 1969 (Part 1)	

Table 2 Other Requirements for Handloom Cotton Light Sheetings

(Clause 5.2)

Sl No.	Characteristic	Requirement	Method of Test, Ref to
(1)	(2)	(3)	(4)
i)	Dimensional change, percent, <i>Max</i>	4	IS 9
ii)	Scouring loss, percent, <i>Max</i> a) Grey b) Finished	10 2.5	IS 1383
iii)	pH value of the aqueous extract	6.0 to 8.5	IS 1390
iv)	Fibre identification	100 percent cotton	IS 667
v)	Colour fastness: a) Light b) Washing Test(4): 1) Change in colour 2) Staining on fabric c) Rubbing: 1) Dry 2) Wet d) Bleaching: 1) Change in colour 2) Staining on fabric	4 or better 3 or better 3 or better 4 or better 4 or better 4 or better 4 or better	IS/ISO 105-B01 or IS/ISO 105-B02 IS/ISO 105-C10 IS/ISO 105-X12 IS/ISO 105-N01

Table 3 Sample Size and Permissible Number of Non-conforming Pieces
(Clause 7.3)

Sl No.	Lot Size	Sample Size	Permissible Number of Non-conforming Pieces	Sub-sample Size
(1)	(2)	(3)	(4)	(5)
i)	Up to 90	5	0	3
ii)	91 to 150	8	0	3
iii)	151 to 500	13	1	5
iv)	501 to 1 200	20	1	5
v)	1 201 to 10 000	32	2	8
vi)	10 001 to 35 000	50	3	8
vii)	35 001 to 500 000	80	5	13
viii)	500 001 and above	125	7	13

7.4 For selection of samples at random from the lot, procedure given in IS 4905 may be followed.

7.5 Number of samples and Criteria for Conformity

Sl No.	Characteristics	Number of Samples	Criteria for Conformity
(1)	(2)	(3)	(4)
i)	Ends, picks, mass, length, width and visual inspection	According to col (2) of Table 3	Number of non-conforming pieces shall not exceed the corresponding number given in col (3) of Table 3
ii)	Dimensional change, colour fastness, scouring loss, fibre identification, pH value and breaking load	According to col (4) of Table 3	All the test pieces shall meet the requirement

8 MARKING

8.1 The cloth shall be suitably marked with the following information:

- Name of the material and variety number;
- Length (m) and width (cm);
- GSM (g/m^2);
- Indication of the source of manufacture; and
- Other declarations required as per law in force.

8.2 BIS Certification Marking

The product(s) conforming to the requirements of

this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.

9 PACKING

Unless otherwise agreed upon by the buyer and the seller the cloth shall be preferably packed in bales or cases in conformity with the procedure laid down in IS 1347 or IS 293.

ANNEX A

(Clause 2)

LIST OF REFERRED STANDARDS

IS No.	Title	IS No.	Title
IS 9 : 2019/ISO 675 : 2014	Textiles — Woven fabrics — Determination of dimensional change on commercial laundering near the boiling point (<i>third revision</i>)	IS 1969 (Part 1) : 2018/ISO 13934 -1 : 2013	Textiles — Tensile properties of fabrics: Part 1 Determination of maximum force and elongation at maximum force using the strip method (<i>fourth revision</i>)
IS 171 : 1993	Textiles — Ring spun grey cotton yarn for weaving — Specification (<i>fourth revision</i>)	IS 3442 : 2023	Textiles — Method for determination of crimp and linear density of yarn removed from fabric (<i>second revision</i>)
IS 293 : 1980	Code of seaworthy packaging of cotton yarn and cloth (<i>third revision</i>)	IS 4905 : 2015/ ISO 24153 : 2009	Random sampling and randomization procedures (<i>first revision</i>)
IS 667 : 1981	Methods for identification of textile fibres (<i>first revision</i>)	IS/ISO 105-B01 : 2014	Textiles — Tests for colour fastness: Part B01 Colour fastness to light: Daylight
IS 1347 : 1972	Specification for inland packaging of cotton cloth and yarn (<i>first revision</i>)	IS/ISO105-B02 : 2014	Textiles — Tests for colour fastness: Part B02 Colour fastness to artificial light: Xenon arc fading lamp test
IS 1383 : 1977	Methods for determination of scouring loss in grey and finished cotton textile materials (<i>first revision</i>)	IS/ISO 105-C10 : 2006	Textiles — Tests for colour fastness: Part C10 Colour fastness to washing with soap or soap and soda
IS 1390 : 2022	Textiles — Determination of pH of aqueous extract (<i>third revision</i>)	IS/ISO 105-N01 : 1993	Textiles — Tests for colour fastness: Part N01 Colour fastness to bleaching: Hypochlorite
IS 1954 : 1990	Determination of length and width of woven fabrics — Methods (<i>second revision</i>)	IS/ISO 105-X12 : 2016	Textiles — Tests for colour fastness: Part X12 Colour fastness to rubbing (<i>first revision</i>)
IS 1963 : 1981	Methods for determination of threads per unit length in woven fabrics (<i>second revision</i>)		
IS 1964 : 2001	Textiles — Methods for determination of mass per unit length and mass per		

ANNEX B

(Clause 5.3)

**EXTRACTS FROM THE GOVERNMENT OF INDIA, MINISTRY OF COMMERCE AND INDUSTRY (TRADE AND MERCHANTIZE MARKS) NOTIFICATION NO. S.O. 2937,
DATED 20 SEPTEMBER 1962**

B-1 A trade description of length stamped on grey, bleached, mercerised or coloured cotton piece goods:

- a) In pieces stamped as of length 9 metres and below the stamped length shall not exceed the actual length by more than 1 percent of the piece length or 7.5 cm whichever is less; and
- b) In pieces stamped as of length above 9 metres the stamped length shall not exceed the actual length by more than 0.6 percent of the piece length or 7.5 cm whichever is higher.

Provided that the average length of the pieces in question shall not be less than the stamped length.

B-2 A trade description of width stamped on grey,

bleached, mercerised or colour cotton piece goods:

- a) In pieces stamped as of width 102 cm, or below, the stamped width shall not exceed the actual width at any point by more than 1.3 cm;
- b) In pieces stamped as of width over 102 cm, up to 152 cm the stamped width shall not exceed the actual width at any point by more than 1.25 percent of the stamped width of the piece; and
- c) In pieces stamped as of width 152 cm and above the stamped width shall not exceed the actual width at any point by more than 1.25 percent of the stamped width of the piece or 2.5 cm whichever is less.

Provided that average width of the piece in question shall not be less than the stamped width.

ANNEX C

(Table 1)

METHOD FOR DETERMINATION OF MASS OF FABRIC

C-1 Cut four specimens of 100 mm × 100 mm from a sample. Condition all the specimens in the desiccator charged with saturated solution of sodium nitrate at $27^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for a period of 24 hours. Remove all the specimens from the desiccator and

immediately determine their collective mass in weighing balance to the nearest milligram.

C-2 Calculate mass of fabric in g/m^2 .

ANNEX D

(Clause 6.1)

LIST OF MAJOR FLAWS

- a) One or more ends missing in the body of the material throughout its length, more than three ends missing at a place and running over 60 cm, or prominently noticeable double end running throughout the piece;
- b) Undressed Snarls noticeable over a length exceeding 5 percent of the length of the piece;
- c) Smash definitely rupturing the texture of the fabric;
- d) Hole, cut or tear;
- e) Reed marks prominently noticeable over a length exceeding 5 percent of the piece;
- f) Defective or damaged selvedge noticeable over a length exceeding 5 percent of the length of the piece;
- g) Skewing of more than three percent on weft;
- h) Weft crack or two or more missing picks across the width of the fabric;
- j) Warp or weft bar due to the difference in raw material, count, twist, lustre, colour, shade or spacing of adjacent groups of yarns (starting mark);
- k) More than two adjacent ends running parallel broken or missing and extending beyond 10 cm;
- m) Noticeable warp or weft float in the body of the fabric;
- n) Noticeable oil or other stain in the fabric;
- p) Oily weft in the fabric;
- q) Prominently noticeable slub;
- r) Conspicuous broken pattern;
- s) Gout due to foreign matter, usually lint or waste woven into the fabric;
- t) Prominent selvedge defect;
- u) Significant shading or listing in fabrics having a gradual change in tone or depth of shade of fabric (excluding selvedge or border running parallel to the selvedge);
- v) Coloured flecks;
- w) Blurred or dark patch;
- y) Patchy, steaky or uneven dyeing;
- z) Dye bar; and
- aa) Fuzzy appearance.

ANNEX E

(Foreword)

COMMITTEE COMPOSITION

Handloom and Khadi Sectional Committee, TXD 08

<i>Organization</i>	<i>Representative(s)</i>
Weavers Service Centre, Delhi	SHRI VISHESH NAUTIYAL (Chairperson) SHRI VIKAS KUMAR (<i>Alternate</i>)
Baster Adimjati Sewak Sangh, Baster	SHRI SUMIT DAS SHRI AMIT DAS (<i>Alternate</i>)
Central Pollution Control Board, New Delhi	SHRI P. K. MISHRA SHRI RISHABH SRIVASTAV (<i>Alternate</i>)
Central Reserve Police Force, New Delhi	SHRI D. P. UPADHYAY SHRI SANJEEV KUMAR SINGH (<i>Alternate</i>)
Department of Handlooms & Textiles, Chennai	SHRI T. P. RAJESH DR K. KARNAN (<i>Alternate</i>)
Gandhigram Rural Institute, Dindigul	REPRESENTATIVE
Haryana Khadi Gramodyog Sangh, Karnal	SHRI PAWAN GARG SHRI R. S. YADAV (<i>Alternate</i>)
ICAR – Central Institute for Research on Cotton Technology, Mumbai	DR SUJATA SAXENA DR A. S. M. RAJA (<i>Alternate</i>)
Indian Institute of Handloom Technology, Varanasi	DR P. THENNARASU
Indian Institute of Handloom Technology, Jodhpur	DR J. SIVAGNANAM
Indo Tibetan Border Police, New Delhi	SHRI UTTAM KUMAR SHRI ANAND KUMAR (<i>Alternate</i>)
Jan Sewa Ashram, Aligarh	SHRI R. K. SHARMA SHRI AKHILESH KUMAR AWASTHI (<i>Alternate</i>)
Karnataka Khadi Gramodyog Samyuktha Sangha, Hubli	SHRI K. V. PATTAR SHRI SHIVANANDA S. (<i>Alternate</i>)
Khadi & Village Industries Commission, New Delhi	SHRI P. NALLAMUTHU SHRI RAM NARAYAN (<i>Alternate</i>)
Khadi Dyers & Printers, Mumbai	SHRI D. N. BHATT SHRI V. D. JOSHI (<i>Alternate</i>)
Khadi Gramodyog Mandal, Rampur	SHRI RAKESH CHAUDHARY SHRI PRINCE CHAUDHARY (<i>Alternate</i>)
Kshetriya Khadi Gramodyog Samiti, Dausa	SHRI R. K. SINGH
Madhya Bharat Khadi Sangh, Gwalior	SHRIMATI NEELU MEKLE SHRI HARISH MEKLE (<i>Alternate</i>)
Mahatma Gandhi Institute for Rural Industrialization, Wardha	REPRESENTATIVE

<i>Organization</i>	<i>Representative(s)</i>
Metpalli Khadi Gramodyog Pratisthan, Metpalli	SHRI G. MADHAV
Ministries of Defence (DGQA), New Delhi	SHRI ARVIND COMPATHANE SHRI N. SENTHIL KUMAR (<i>Alternate</i>)
Ministries of Health, New Delhi	REPRESENTATIVE
National Handloom Development Corporation Ltd, Gautam Budh Nagar	DR SAKTHIVEL PERUMALSAMY SHRI JITENDRA TOLAMBIYA (<i>Alternate</i>)
Northern Railways, New Delhi	SHRI SUDHANSU KUMAR GUPTA
Northern India Textile Research Association, Ghaziabad	DR M. S. PARMAR SHRI SANJEEV SHUKLA (<i>Alternate</i>)
Office of The Development Commissioner for Handlooms, New Delhi	SHRI SIDDHARTH SINGH SHRI VINAY KUMAR (<i>Alternate</i>)
Rastriya Khadi Gramodyog Federation, Moradabad	SHRI ANIL KUMAR SINGH SHRI KULDEEP SINGH (<i>Alternate</i>)
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Textiles Committee, New Delhi	SHRI KARTIKAY DHANDA SHRIMATI SHILPI CHAUHAN (<i>Alternate</i>)
The Cotton Textiles Export Promotion Council (TEXPROCIL), Mumbai	DR SIDDHARTHA RAJAGOPAL SHRI RAJESH SATAM (<i>Alternate</i>)
The Handloom Export Promotion Council, Chennai	DR M. SUNDAR EXPORT PROMOTION OFFICER (<i>Alternate</i>)
The Tamil Nadu Handloom Weavers' Cooperative Society Ltd, Chennai	SHRI T. N. VENKATESH SHRI K. KATHIRESAN (<i>Alternate</i>)
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Member Secretary
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SCIENTIST 'B'/ASSISTANT DIRECTOR
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